Title: PRECISION PHASE GENERATOR

REMARKS

In response to the Office Action dated 3 October 2003, the applicant requests reconsideration of the above-identified application in view of the following remarks. Claims 1-3, 20, and 21-47 are pending in the application, and are rejected. Claims 1, 20, 22, 26, 31, 32, 35, 39, 40, 43, and 47 will be amended upon entry of the present amendment. Claims 25, 30, 38 and 46 will be canceled and new claim 48 will be added upon entry of the present amendment. No new matter has been added.

Information Disclosure Statement

The applicant filed an Information Disclosure Statement with a Form 1449 on 10 March 2003. A copy of the Form 1449 has not been returned to the applicant. The applicant respectfully requests that all of the references listed on the Form 1449 be considered by the Examiner. Pursuant to the provisions of MPEP 609, the applicant requests that a copy of the Form 1449 filed on 10 March 2003, with all of the listed references initialed as being considered by the Examiner, be returned to the applicant with the next official communication.

Rejections of Claims Under \$102

Claims 1, 20, 22, 23, 25, 27, 28, 30, 32, 35, 36, 38, 40, 43, 44 and 46 were rejected under 35 USC §102(b) as being anticipated by Moreau (U.S. Patent No. 4,282,493). Claims 1, 20, 24, 29, 32, 37, 40 and 45 were rejected under 35 USC §102(b) as being anticipated by Li et al. (U.S. Patent No. 5,058,132, Li). Claims 1, 20, 24, 29, 32, 37, 40 and 45 were rejected under 35 USC \$102(b) as being anticipated by Fujii (U.S. Patent No. 5,315,269). The applicant respectfully traverses.

Independent claims 1, 20, 32, and 40 will be amended upon entry of the present amendment to include features found in claims 26, 31, 39, and 47 that were rejected under 35 USC §103(a) in view of Li and Epstein discussed below. Claims 22, 23, 25, 27, 28, 30, 35, 36, 38, 43, 44 and 46 depend variously on independent claims 1, 20, 32, and 40.

The applicant respectfully submits that claims 1, 20, 22, 23, 25, 27, 28, 30, 32, 35, 36, 38, 40, 43, 44 and 46 are in condition for allowance for the reasons stated below with respect to the rejected claims 26, 31, 39, and 47.

Rejections of Claims Under §103

Claims 2-3, 21, 33-34 and 41-42 were rejected under 35 USC §103(a) as being unpatentable over Moreau. The applicant respectfully traverses.

Claims 2-3, 21, 33-34 and 41-42 depend variously on independent claims 1, 20, 32, and 40 that will be amended upon entry of the present amendment as discussed above. The applicant respectfully submits that claims 2-3, 21, 33-34 and 41-42 are in condition for allowance for the reasons stated below with respect to the rejected claims 26, 31, 39, and 47.

Claims 26, 31, 39 and 47 were rejected under 35 USC §103(a) as being unpatentable over Li in view of Epstein (U.S. 4,093,870). The applicant respectfully traverses.

Independent claims 1, 20, 32, and 40 will be amended upon entry of the present amendment to include features found in claims 26, 31, 39, and 47. Claims 26, 31, 39, and 47 will be amended accordingly upon entry of the present amendment. The applicant respectfully submits that independent claims 1, 20, 32, and 40 are in condition for allowance for the reasons stated herein.

Representative of the amended independent claims, claim 1 as amended recites a circuit comprising, among other elements, a phase lock loop circuit and a Johnson counter comprising an input JK flip-flop, an output JK flip-flop, and a plurality of middle JK flip-flops, coupled together as recited in amended claim 1.

Li relates to a clock distribution system and shows a circuit called a Johnson counter 114 in Figure 2. Epstein relates to an apparatus for testing reflexes and shows a circuit called a Johnson counter 54 in Figure 4. Epstein's Johnson counter 54 has only three JK flip-flops. Neither Li nor Epstein show a Johnson counter comprising an input JK flip-flop, an output JK flip-flop, and a plurality of middle JK flip-flops as is recited in amended claim 1. Therefore,

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

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even as combined, Li and Epstein do not show the claimed invention. In addition, there is no evidence of a suggestion or motivation to modify Epstein or to combine Li and Epstein.

The MPEP states the following with regard to rejections under 35 USC § 103:

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." MPEP 2143.

A Federal Circuit opinion states that the suggestion or motivation to combine references and the reasonable expectation of success must both be found in the prior art. MPEP 2143 citing *In re Vaeck*, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

The Federal Circuit has particularly emphasized the need for the PTO to furnish evidence in support of claim rejections under 35 USC § 103 in *In re Lee*:

"When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness.....The factual inquiry whether to combine references must be thorough and searching....It must be based on objective evidence of record." *In re Lee*, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

The Federal Circuit has also stated that the teaching, motivation, or suggestion to select and combine references be "clear and particular":

"[T]he best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.....the showing must be clear and particular." *In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

The Office Action proposed that it would have been obvious to add more flip-flops to Epstein stating that "it is considered to be well known that you could have any number of middle flip-flops depending on the requirements of the circuit." Office Action, page 6. This is not so because adding flip-flops would produce a different counter output for each added flip-flop. It would not be obvious to substitute one for another without a clear and particular teaching as required by *In re Dembiczak*. The Office Action did not cite a prior art source of the above-

quoted motivation for modifying Epstein. The Office Action has not presented evidence from the prior art of a teaching or motivation to modify Epstein as is required by In re Vaeck and In re Lee.

The Office Action stated that it would have been obvious to combine Li and Epstein "Since, Li does not disclose the particular construction of the Johnson counter any Johnson counter could be used and the Johnson counter of Epstein is one example." Office Action, page 7. This is not so simply because of the variety of circuits called Johnson counters. For example, Li, Epstein, and Moreau cited above each refer to a different circuit as a Johnson counter. Each of the circuits shown in Li, Epstein, and Moreau would produce a different counter output. It would not be obvious to substitute one for another without a clear and particular teaching as required by In re Dembiczak. The Office Action did not cite a prior art source of the abovequoted motivation for combining Epstein and Li. The Office Action has not presented evidence from the prior art of a teaching or motivation to combine Li and Epstein as is required by In re Vaeck and In re Lee.

The applicant respectfully submits that a prima facie case of obviousness of claims 26, 31, 39 and 47 has not been established in the Office Action, and that independent claims 1, 20, 32, and 40 that will be amended upon entry of the present amendment to include features found in rejected claims 26, 31, 39, and 47, are in condition for allowance.

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CONCLUSION

The applicant respectfully submits that all of the pending claims are in condition for allowance, and such action is earnestly solicited. The Examiner is invited to telephone the below-signed attorney at 612-373-6973 to discuss any questions which may remain with respect to the present application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date 5 JANUARY 2003

By

Robert E. Mates Reg. No. 35,271

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this ______ day of January, 2004.

Ting Kahaut

Signature

Name